DOCUMENT RESUME

ED 345 526 FL 020 222

AUTHOR Buss, Carol A.
TITLE The "ng" Challenge: Five Simple Rules for Pronunciation Prediction.
PUB DATE 88
NOTE 15p.; For the complete volume, see FL 020 221.
PUB TYPE Reports - Evaluative/Feasibility (142) -- Guides - Classroom Use - Teaching Guides (For Teacher) (052) -- Journal Articles (080)
JOURNAL CIT Issues and Developments in English and Applied Linguistics (IDEAL); v3 p1-13 1988

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Class Activities; Classroom Techniques; Diachronic Linguistics; *English (Second Language); *Language Patterns; *Phoneme Grapheme Correspondence; *Phonology; *Pronunciation Instruction; Second Language Learning; *Spelling

ABSTRACT

The importance of training second language learners in the patterns of occurrence of certain phonemes is discussed, focusing on the use of spelling as a primary predictor of pronunciation. Four different pronunciations of "ng" in English (as in "engaging, singer, changing, dangle") are used to illustrate this principle. A review of pronunciation literature relating to "ng" suggests that not only is useful instructional material on this sound-symbol relationship needed, there is also a general need for prediction skill development in the second language class. The phonological evolution of this particular spelling is then chronicled. Two analyses of the pronunciation of "ng" spelling patterns follow: one technical and one pedagogical. In the first, rules of consonant-correspondence patterns that account for the various pronunciation patterns are outlined. In the second, these rules are adapted for classroom use. Additional consideration and suggestions for classroom presentation of the rules for specific student needs, instructional levels, or teaching purposes are presented. A series of sample exercises to help students learn and apply the patterns concludes the discussion. A brief bibliography is included. (MSE)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED345526

The NG Challenge: Five Simple Rules for Pronunciation Prediction.

Author: Carol A. Buss

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Wayne Dickerson

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)"

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

FL 020 228

BEST COPY AVAILABLE

IDEAL 3, 1988

THE NG CHALLENGE: FIVE SIMPLE RULES FOR PRONUNCIATION PREDICTION

Carol A. Buss

Consider the following sentence: "They congratulated the singer for challenging the English conductor." Here we find four different pronunciations for the same spelling--ng--namely, [ŋg], [ŋ], [nǰ], and [ŋg]. This is likely to be viewed as just another example of the "haphazard" nature of sound-symbol correlations in English--no problem for the native speaker, but a considerable challenge for the ESL/EFL student. Until recently, students were required to learn individual words and memorize their pronunciations. They might, in time, internalize certain patterns of pronunciation through exposure to the language as a native speaker does, but this would be a rather unreliable and time-consuming method. Students would still be forced to guess the pronunciation of new words, use a dictionary, or ask a native speaker. Fortunately, it has now been shown that there is in fact method to the seeming madness of English spelling, i.e., there are systematic relationships between spelling patterns and pronunciation. By devising rules to describe these relationships, pronunciation becomes predictable and the student becomes more independent.

This is a study of one particular set of spelling patterns--those containing ng--and their relationship to four basic pronunciations. This article 1) shows the general importance of prediction work in the pronunciation class, 2) surveys the current state of material on ng pronunciation, 3) gives a brief history of ng pronunciations, and 4) presents simple, pedagogically useful rules for ng pronunciation with some considerations of their use in the ESL/EFL classroom as well as some sample exercises.

THE ROLE OF PREDICTION IN PRONUNCIATION LEARNING

When one thinks of a pronunciation class, one immediately thinks of production work--pronunciation drills, pointers on articulation, etc. This work, if successful, will yield one result--the student will be able to accurately produce the target sound(s). Accurate production is, of course, a valuable goal, but in order for it to be truly useful, it must not be the only goal of the pronunciation class. In English the sound allotted to a particular symbol is highly dependent on the word it is in--the environment of the symbol (surrounding letters and affixes), the stress assigned to nearby syllables (stressed or unstressed), and sometimes on the part of speech involved. The students' ability to produce (or perceive) a particular sound, e.g., [ŋ], cannot meet all of their pronunciation needs; they must also know when to use the sound, i.e., be able to predict its occurrence. How else will students who have mastered the production of the four basic ng pronunciations know which one to apply to engaging, singer, changing, or dangle? Predicting pronunciation is not just a matter of wishful thinking; it can be done and should be a standard component of any pronunciation class.

The study of the pronunciation of ng in English--a spelling pattern which occurs in approximately 10,000 words--was motivated by the work of Wayne B. Dickerson at the University of Illinois at Urbana-Champaign who, from the tenets of generative phonology, seized the notion that pronunciation is rule-governed. Finding the generative phonological rules to be too technically complex for pedagogical use, Dickerson (1985) began designing simple, yet accurate, spelling-based rules which could be applied mechanically by any ESL/EFL student. Using Dickerson's work as a model, this study provides some simple rules which will allow students to predict the correct pronunciation of ng on the basis of orthographic environment. Orthography is a useful tool for prediction because it is readily available to students, and it works so well. Students can rely almost totally on what is on the page before them. While it is necessary for students to be able to recognize certain affixes, assign stress, and, in some cases, identify parts of speech, they do not need to consult a dictionary, hear the word spoken, or know its derivation or meaning. As will be seen below, students who have acquired the fundamentals of Dickerson's system can quite easily predict the appropriate ng pronunciation for as much as 99% of the ng corpus.

NG IN ESL/EFL TEXTBOOKS

A brief survey of some available pronunciation literature relating to ng not only reveals the need for pedagogically useful ng material, but also illustrates the necessity, in general, for prediction work in the pronunciation class. Technical analyses presented by linguists on the subject represent one extreme on the complexity continuum and cannot be used in the classroom. Most texts, however, are at the other extreme. If they deal with the issue at all, they do so in a very haphazard and often confusing manner and usually concentrate on production rather than prediction. In many cases little information on consonants is included in textbooks at all. The information that does exist on ng is not very thorough and generally emphasizes the production of [ŋ] as opposed to [n]. Although word lists are sometimes provided, students are not given enough information to make solid generalizations about the various pronunciations. The few pedagogical books found which contain more thorough analyses leave students almost as helpless; their explanations tend to be too technical, requiring too much linguistic knowledge on the part of the student.

Few pronunciation texts use spelling as a point of departure. Although McClelland, Hale and Beaudikofer (1979) refer first to spelling, then sound, no information is given on the ng digraph. Most other books begin with sounds and may or may not refer to spelling. In many books, word lists are given after the discussion of a particular pronunciation, but these often do little to clarify the issue of when to use which pronunciation (Hooke and Rowell, 1982; Trager, 1982). Instead of learning to form generalizations, the most students can do is try to memorize the individual words.

Although most pronunciation books discuss the [nǰ] sound, few, outside of Thompson's Learning to Pronounce English (1978), establish the relationship between [nǰ] and the nge# spelling. In most cases this sound-symbol relationship is either totally ignored (Clarey and Dixson, 1985) or dealt with very superficially (Trim, 1975). Although it may be possible to find a thorough discussion of an issue as complicated as the pronunciation of medial ng, it will likely be too technical and require too

much linguistic sophistication on the part of students (Roach, 1983).

Axel Wijk's discussion of ng pronunciations in Rules of Pronunciation for the English Language (1966) is particularly thorough. He deals with all pronunciations (including the rarely mentioned [ng]) and attempts to state rules for them. His "rules," however, are too wordy and leave too many ambiguities to be pedagogically useful. If Wijk's information were summarized more clearly and economically, it might be quite useful for students.

As can be seen from this sampling, current materials do not adequately relate pronunciation information to the ng spelling. The information is either too technical, too sketchy, or simply too confusing. Students are given much more help with recognizing and producing the sounds than with predicting their occurrence in words. Needed in addition to production work are clear-cut rules covering all correlations between the ng spelling and consonant pronunciations, stated in precise terms easily understood by the average student.

HISTORY

In Old English there was one basic pronunciation for ng, [ŋg]. According to McLaughlin, in Aspects of the History of English (1970), [ŋg] occurred only in medial position in Old English (in words such as bringan), and did not occur word-finally until the Middle English period when inflectional endings such as "an" were lost (e.g., bringan → bring) (p. 112). According to Kispert (1971, p. 16), [ŋg] appeared word-finally in at least a few Old English words such as hring 'ring'. Kispert, among others, indicates another pronunciation for this spelling pattern in Old English--[nǰ]. When g was pronounced [ǰ] as in Modern English gin, he says, a preceding n was pronounced [n], e.g., lengu 'length' (pp. 16-18).

According to Dobson in English Pronunciation: 1500-1700 (1968), [ŋg] was the usual pronunciation of ng in all positions throughout the Middle English period in "educated standard English." During this period, however, the [g] in final [ŋg] was gradually lost. This sound change spread from dialect to dialect until it finally became part of standard English by approximately 1600. Medial ng pronunciation varied in Middle English much as in Modern English with [ŋg] and [ŋ] both being found.

It was during the Middle English period that a significant contribution from French occurred in the form of nge# spellings. These spellings were pronounced [nǰ] as in Modern English. Robertson believes that the French pronunciation [nž] was naturalized into [nǰ], leaving us with our modern pronunciation of words such as change and orange (1954, p. 160). Many other Modern English words which contain the [nǰ] pronunciation are derived from French, such as engine and angel. These may also be examples of borrowings in which naturalization from [nž] to [nǰ] occurred. There are, of course, borrowings in which the French [nž] has been retained, such as lingerie (although [nǰ] is also acceptable here), but these are not significant in number. Therefore, although it does not appear that French directly influenced the pronunciation of ng in English, it does seem to have had a considerable indirect effect because of the widespread application of [nǰ] to the French spellings as a substitute for [nž]. French also contributed the ngue# spelling of such words as harangue, with its [ŋ] pronunciation.

Although various other languages have contributed words with ng spellings (e.g., gringo from Spanish, dungaree from Hindi), these borrowings have been few in number.

The only pronunciation which has not been mentioned is [ng] as in engage. This pronunciation normally only occurs when n is part of a prefix. It appears that in Old English, prefixes ending with n were most often followed by the palatalized g ([ǰ]) referred to above, e.g., ungemetlic, ungyld (Kispert, p. 266). By the early Modern English period, however, prefixes ending in n were often followed by [g]. These ng spellings were sometimes pronounced [ng] and sometimes [ŋg] (Dobson, 1968). This was particularly true (as in Modern English) of the prefixes in- and con-. Dobson attributes particular pronunciations either to stress or to the "identity" of the prefix. The prefix un- always had "regular [n] because of the strong sense...of its separate identity" (p. 953).

It can be seen, then, that ng spellings have evolved from having one primary pronunciation in the Old English period to having four in Modern English (plus the virtually nonexistant borrowing from French, [nǰ]). These pronunciations and their relationships to the ng spelling pattern are a result of the heritage of Old English, natural sound change, and the effect of French borrowings in the Middle English period.

SYMBOL-SOUND REGULARITIES

The next two sections provide two analyses--one technical, and one pedagogical--of the pronunciation of ng spelling patterns. The rules in the technical analysis have been devised solely to account adequately for the various pronunciations without regard to their pedagogical usefulness. In the pedagogical analysis, the technical rules have been adapted so as to be useful in the classroom. The format of these rules, which are called consonant-correspondence patterns (Dickerson, 1986), is as follows:

spelling pattern = -pronunciation-

General symbols used on the left side of this rule form are as follows:

+	a morpheme boundary
( )	optionally present
ˈ	primary or secondary stress
˘	unstressed
C	consonant letter
V	vowel letter
#	in the technical analysis: end of free stem, but not necessarily end of word; in the pedagogical analysis: end of word
+ W	before a weak ending that begins with e, i, or y (see list in Pedagogical Considerations, below)
u cons.	the consonant letter u (when pronounced as silence as in guess or [w] as in square

Pronunciation symbols used on the right side of the equation are placed between hyphens. They have the following phonetic equivalences:

-ng- [ŋ]--the sound of ng as in sing

-nj- [nǰ]--the sound of ng as in singe
-n/g- [ng]--the sound of ng as in engage
-ngg- [ŋg]--the sound of ng as in finger
-nzh- [nž]--the sound of ng as in the French pronunciation of lingerie

Each consonant-correspondence pattern cited below is followed by representative examples as well as exceptions. A small number of examples and virtually all exceptions are given for each rule in each analysis. Inflected and derivational forms are not usually given in the examples or exceptions. Exceptions vary somewhat between analyses due to the differences in rule formation and order of rule application. It should be mentioned that out of a corpus of approximately 10,000 words, the number of exceptions in both analyses is very small--no more than 1% of the total corpus.

Technical Analysis

The following is a set of six rules which account for all pronunciations associated with the ng spelling pattern. These rules were not devised with pedagogical usefulness in mind. Instead, they were intended to describe thoroughly the occurrences of the various pronunciations and to serve as the basis for the pedagogical rules. In order to be effective, the rules must be applied to the ng corpus in their given order.

1. **ng# = -ng-**

When ng occurs at the end of a word, it is pronounced -ng-. This applies to all inflected, combined and derivational forms of these words.

Examples: words ending in ng, and all forms of those words, i.e., cling, clingy, clingiest, clingstone; king, kingly, kingdom. Also, alongshore, casinghead, herringbone, gangland, gangster, wingback.

Exceptions: -ngg-: longer (adj., adv.), longest, prolongation, stronger, strongest, younger, youngest.

Comments: This section represents by far the largest group of ng spellings.

2. **ge,i,y = -j-**

When g is followed by either e, i, or y, it is pronounced -j-. The letter which precedes g does not affect its pronunciation.

Examples: angel, danger, engineer, longitude, stingy.

Exceptions: -ng-: bollinger, humdinger, Pyongyang. -ngg-: anger, conger, finger, hunger, linger, malinger, monger. -nzh-: allonge, rongeur.

3. **n (+) g(r,l, u cons.)V́ = -n/g-**

When ng is followed by either r, l, or the consonant letter u and a stressed vowel, it is pronounced -n/g-.

BEST COPY AVAILABLE

Examples: conglomerate, engage, ingredient, sunglasses, vanguard (also -ngg-).

Exceptions: -ng-: syringadenous. -ngg-: elongation, linguistic, dengue.

Comments: Stress may be primary or secondary. In most cases the n and g are divided by a morpheme boundary. Many of these words contain prefixes.

4. **ngl = -ngg-**

When ng is followed by l, it is pronounced -ngg-.

Examples: angle, Anglican, commingle, English, jungle, newfangled, rectangle.

Exceptions: none.

Comments: This rule applies to all ngl spellings except that which is eliminated by the preceding rule--namely, when l is followed by a stressed vowel.

5. **n (+) g(r,u cons.)V̆ = -ngg-**

When ng is followed either by r or the consonant letter u and an unstressed vowel, it is pronounced -ngg-.

Examples: angular, anguish, bongo, bungalow, congregate, kangaroo, language, mango.

Exceptions: -ng-: orangutan.

Comments: This pattern is the same as that of rule 3 except for the change in stress assignment and the omission of l. This rule includes ng pronunciations before the u consonant sound [w] as in anguish, and before the invisible y [y] which occurs before u in words such as angular (Dickerson, 1985).

6. **ngC = -ng-**

When ng is followed by a consonant it is pronounced -ng-.

Examples: Chungking, gingham, harangue, length, strength, tongue, tungsten.

Exceptions: none.

Comments: This pattern covers words in which ng is not followed by the consonants r, l, or u (as in rules 3, 4 and 5) and is not, as in rule 1, at the end of a free stem. It includes the ngue spelling pattern in which e is neither stressed nor unstressed.

Pedagogical Analysis

The five rules which follow have been adapted from the preceding analysis for use with ESL/EFL students. These rules are also an ordered

set. If not applied in order, many incorrect pronunciations will result. Words listed as exceptions may or may not be pedagogically useful. It will be up to the teacher to decide which exceptional words to have students memorize. His/her selection of exceptions to teach will depend on the wants, needs, and abilities of the students and on the classroom situation (time restraints, etc.). See Pedagogical Considerations, below.

This corpus does not include words having the prefixes down-, in- (meaning "non"), non-, and un- affixed to a stem beginning with g. These are neutral prefixes which have no effect on the word to which they are attached (Dickerson, 1988, pp. 69-70). As part of their instruction, students learn to recognize and ignore neutral prefixes.

Rule 1 of the technical analysis has been transposed to the end of the pedagogical rules and combined with ngC = -ngg-. If it were to remain the first rule, students would have to be able to recognize free stems in words such as clingier, clingiest, hanger, and tangy. This is too much to expect of students. It is easier for them to start with rule 2 of the technical analysis (rule 1 of the pedagogical rules) and, from among the exceptions to that rule, memorize whatever words are deemed most useful. It is necessary for students to memorize one or two sets of words in order to know that stinger, stranger, and stronger have different ng pronunciations. What follows seems to be the simplest means of learning these pronunciations.

All other rules are the same and appear in the same order as in the technical analysis. The pedagogical rules have exceptions which do not occur in the technical rules as a result of the need to move rule 1 to the end.

1. **ge,i,y = -j-**

When g is followed by either e, i, or y, it is pronounced -j-. The letter which precedes g does not affect its pronunciation.

Examples: adenopharyngitides, angel, binge, changeover, danger, engineer, frangible, ginger, harbinger, ingenious, laryngitis, longitude, manginess, orange, passenger, rangelands, stingy, tangent, vengeance.

Exceptions: -ng-: for ng + W in all of the following words: bang, belong, bong, bring, clang, cling, fang, fling, gang, hang, long (nouns and verbs), oblong, ping, prolong, prong, ring, sing, slang, sling, spring, string, swing, tang, throng, twang, wing, wring, wrong, zing. -ng-: bantingism, bollinger, humdinger, pekingese (also -n-), Pyongyang, stinger, stinging, Wyomingite, youngish. -ngg-: anger, conger, finger, hunger, monger, malinger, linger, longer (adj., adv.), longest, younger, youngest, stronger, strongest. -nzh-: allonge, rongeur.

Comments: As mentioned above, the first group of exceptions to this rule is necessary because students cannot be expected to identify free stems with a weak ending attached. For example, since -nger, -nging, and -ngy fit rule 1, students are not likely to distinguish the two pronunciations of ng in the following word pairs unless they memorize the above set of words: ginger - singer, ranging - ganging, mangy - tangy. The ng + W set is the largest group of exceptions and is, in

essence, a rule within a rule.

2. **ng(r,l,cons. u)V́ = -n/g-**

When ng is followed by either r, l, or the consonant letter u and a stressed vowel, it is pronounced -n/g-.

Examples: Angola*, angora*, conglomerate, engage, farthingale*, gangrene*, ingredient, mangrove*, Mongolian*, oceangoing, sangria*, sanguineous*, sunglasses, vainglory.
*also -ngg-

Exceptions: -ng-: gangland, hangout/over/up, longrun, ringleader, strongarmer, strongroom, syringadenous. -ngg-: elongation, linguistic, oblongata, prolongation.

Comments: This is virtually the same as rule 3 in the technical analysis, but the optional morpheme boundary indicator (+) is omitted since students are not expected to recognize morphemes. The pronunciation of a number of the examples is variable--both -n/g- and -ngg- are acceptable. Students should be allowed to use either pronunciation since both are correct.

3. **ngl = -ngg-**

When ng is followed by l, it is pronounced -ngg-.

Examples: angle, Anglican, commingle, English, jungle, newfangled, rectangle.

Exceptions: youngling.

Comments: This rule applies to all ngl spellings except that which is eliminated by the preceding rule--namely, when l is followed by a stressed vowel.

4. **ng(r,cons. u)V̌ = -ngg-**

When ng is followed by r or the consonant letter u and an unstressed vowel, it is pronounced -ngg-.

Examples: angular, bongo, bungalow, clangor (also -ng-), congregant, Congress, congruous, dungaree, extinguish, flamingo, Hungary, hungry, ingot, kangaroo, language, manganese, mongrel, sanguine, tunga.

Exceptions: -ng-: hangable, orangutan.

Comments: This is the same as rule 5 in the technical analysis, again with the optional morpheme boundary indicator omitted.

5. **ngC,# = -ng-**

When ng is followed by a consonant or if it occurs at the end of a word, it is pronounced -ng-.

Examples: all words ending in ng, alongshore, casinghead,

demisangue, gangplank, gangster, herringbone, kingdom, kingfisher, kingpin, laughingstock, length, longhorn, ringside, Shanghai, sloping, strength, tungsten, wingback, youngster.

Exceptions: none

Comments: This pattern covers words in which ng is not followed by the consonants r, l, or u (as in rules 2, 3, and 4). More or less a combination of rules 1 and 6 of the technical analysis, this rule accounts for the largest number of words. It includes the ngue spelling pattern in which e is neither stressed nor unstressed.

PEDAGOGICAL CONSIDERATIONS

The pedagogical rules presented above may be adapted in numerous ways for use with learners at varying levels of proficiency and in a variety of teaching situations. It is not essential that all of the rules be presented together. Advanced students who have acquired the necessary background information can handle the entire rule set. Intermediate and even beginning students will be able to handle select portions of the set. Modifications can be made at any level to simplify or change the focus of the rules. A discussion of the various uses of the rules follows.

The student who wishes to master the ng pronunciation rules will need to be able to:

a) recognize vowel and consonant letters (necessary for all rules);
b) recognize the prefixes down-, in- (meaning "not"), non-, and un- in order to eliminate them from the corpus of words governed by the ng rules (relates to rules 2 and 4);
c) recognize neutral endings and know to disregard them in the analysis since they have no effect on pronunciation. Although many neutral endings occur in this word corpus, only the following set (all of which begin with the letter l) will be problematic because of rules 2 and 3 and must be recognized: -ly, -less, -let, -like (Dickerson, 1981, pp. 63 and 89);
d) recognize the e, i, and y weak endings which are pertinent to rule 1 of this analysis (Dickerson, 1981, p. 70): -ed, -er, -ing, -ish, -y;
e) assign stress (necessary for rules 2 and 4) (Dickerson, 1981).

The teacher can, quite mechanically, eliminate the rules which would be too difficult for his/her students by looking at the criteria listed above. Rules 2 and 4 are the most difficult, requiring the ability to predict stress. Rules 1 and 5 can easily be taught separately from the other two. Rule 3 can only be taught after rule 2.

The teacher must be sure that students have the background information needed to apply the particular rule. If students do not know the weak endings, for instance, they will have to be taught and practiced.

Advanced students. It is clear that the student who masters the entire set of four rules will have to be quite advanced. The teacher can present these students with the entire rule set or, if a "shortcut" lesson of sorts is desired, he/she may deal only with rules 1 and 5. When treated as a complete set, the rules should be taught and applied in order.

BEST COPY AVAILABLE

Intermediate students. Intermediate students can easily learn rules 1 and 5. They may have learned rule 1 as a part of pronunciation rules for g. Only five weak endings are needed to handle the first group of exceptions. The teacher can easily provide students with the neutral endings necessary for rule 5 if students are not already familiar with them.

Beginning students. Beginners can benefit by learning rule 5 which covers the largest number of words. They will merely need to know that C does not include r, l, or u (except the ngue pattern). This is the simplest and most useful rule.

Modifications. Rules 1, 2, and 4 contain a number of words among the exceptions which are rarely used and do not need to be taught. Such words as bantingism, bollinger, Wyomingite, allonge, and rongeur in rule 1, strongarmer, syringadenous, and oblongata in rule 2, and orangutan in rule 4 could easily be eliminated without handicapping students in any way. The large group of exceptions under rule 1 (ng +W) can be made more manageable by eliminating some of the less frequently used words.

It is worth noting that the ng word corpus contains a large number of medical terms, e.g., laryngology, pharyngeal. These might be singled out for special lessons for students in medical fields or, for instance, biology.

As with all prediction rules, the ng rules should be taught in conjunction with work on production and perception of the sounds related to these spelling patterns.

SAMPLE EXERCISES

The following are samples of exercises which can be used to help students learn the ng rules and to give them practice in applying them. Written exercises in which students write out the rules or use their rules to write out predictions can be given as homework. Others can be used in class for oral practice or as pencil-and-paper tests of students' mastery of the rules. Exercises may focus on only one rule or on all five. They may be combined with a grammar lesson (as in in-class exercises 1 and 2), or they may test students' ability to recognize exceptions (in-class exercise 4). Teachers should choose the content of such exercises according to the rules and exceptions learned by the class.

These are only sample exercises. A larger number of words or sentences would normally appear in each exercise.

Homework

ng Spelling Patterns

1. ge,i,y = -j-
2. ng(r,l,u cons.)$\dot{V}$ = -n/g-
3. ngl = -ngg-
4. ng(r,u cons.)$\breve{V}$ = -ngg-
5. ngC,# = -ng-

The five rules listed above tell you how to predict the sound of ng. As you can see, the letters which follow ng are very important. To analyze an ng spelling pattern, look at the first rule. If it does not describe the pattern, move to the second rule and so on until you find the correct pattern. Then you will be able to predict the ng sound.

1a. Write out the rule which describes ng in the following words.
b. Write the sound of ng.
c. Read each word out loud.

	Rule	Sound
belong	_____	- -
tangible	_____	- -
England	_____	- -

2. There are a few excetions to these rules. Your teacher will give you a list of exceptions to learn. Memorize these words and their ng sounds.

3. Circle the correct pronunciation for the ng speling in each of the following words.

cliffhanger	-nj-	-n/g-	-ngg-	-ng-
hummingbird	-nj-	-n/g-	-ngg-	-ng-
estrange	-nj-	-n/g-	-ngg-	-ng-
linguist	-nj-	-n/g-	-ngg-	-ng-
engage	-nj-	-n/g-	-ngg-	-ng-

4. Find a word in the following paragraph to fit each pattern below.

The Hungarian engineer talked Mr. Wellington into giving him a challenging job. He has to convert a boardinghouse in Washington into bungalows for single Congressmen.

ge,i,y = -j-	
ng(r,l,u cons.)V́ = -n/g-	_____
ngl = -ngg-	_____
ng(r,u cons.)V̌ = -ngg-	_____
ngC,# = -ng-	_____
	_____

In-class work

1. One student asks the question, another answers, then asks someone else the question. [Combines grammar and pronunciation.]

What are you doing?

I'm _____ a book. (read)
I'm _____ for the bus. (wait)
I'm _____ for my sister. (look)

2. Complete the following sentences with the correct form of the verb in parentheses. Read the sentences out loud.

1. The students are _____ home during the Christmas break. (go)

2. We were _____ Long Island when it started to snow. (visit)
3. The youngster is _____ the length of the ice rink. (skate)

3. Circle the word in each group with the ng sound that is different from the other two. [Words will vary according to choice of exceptions.]

1.	changed	lunged	thronged
2.	tangy	rangy	mangy
3.	stranger	hanger	danger
4.	ringing	hinging	cringing

4. Does the word have a weak ending? Is the word an exception? Circle yes or no for each question. [Words used in this exercise will vary according to the teacher's choice of exceptions to be taught.]

	weak ending		exception	
angel	Y	N	Y	N
ranged	Y	N	Y	N
dingy	Y	N	Y	N
manger	Y	N	Y	N
Clingy	Y	N	Y	N

5. Match the word in the column on the left with the word that has the same ng sound on the right:

tangible	angle
ingredient	ingenious
hungry	fetching
strength	congruent

6. Read the following sentences aloud:

The passengers were angry about the delay.
The fire extinguisher was hanging in the hall.
Finding the right ingredients was a challenge.
The congressman wore sunglasses to the hearing.

7. The teacher can pick paragraphs containing ng words from any book or magazine and have students read them out loud.

CONCLUSION

This study has identified a means by which students of English can learn to predict when to use each of the four major pronunciations of the ng spelling pattern. The number of important exceptions to these rules is very minimal. Some of the rules can be used even by beginners for predicting the pronunciation of a very large part of the 10,000 word corpus, and, with the minimal required background, the entire set can be mastered to achieve 99% accuracy in prediction.

ACKNOWLEDGEMENTS

I would like to thank Wayne B. Dickerson and Mrs. Pearl Goodman for their insights and thoughtful advice during the course of this study.

THE AUTHOR

Carol Buss is a graduate student in the Division of English as an International Language at the University of Illinois at Urbana-Champaign. This article has been adapted from her Masters thesis.

REFERENCES

Clarey, M. E., & Dixson, R. J. (1985). Pronunciation exercises in English. New York: Regents Publishing Company, Inc.

Dickerson, W. B. (1981). A pedagogical interpretation of generative phonology: II. the main word stress rules of English. TESL Studies, 4, 57-93.

Dickerson, W. B. (1985). The invisible y: a case for spelling in pronunciation learning. TESOL Quarterly, 19, 303-316.

Dickerson, W. B. (1986). A pedagogical interpretation of generative phonology: V. consonant choice. IDEAL, 1, 53-67.

Dickerson, W. B. (1988). Stress in the speech stream, unit 2. Urbana: University of Illinois Press. Forthcoming.

Dobson, E. J. (1968). English pronunciation: 1500-1700: II. phonology. London: Oxford University Press.

Hooke, R., & Rowell, J. (1982). A handbook of English pronunciation. London: Edward Arnold.

Kispert, R. J. (1971). Old English: an introduction. New York: Holt, Rinehart and Winston, Inc.

McClelland, L., Hale, P. A., & Beaudikofer, D. (1979). English sounds and spelling. Englewood Cliffs, N. J.: Prentice-Hall, Inc.

McLaughlin, J. C. (1970). Aspects of the history of English. New York: Holt, Rinehart and Winston, Inc.

Roach, P. (1983). English phonetics and phonology. Cambridge: Cambridge University Press.

Robertson, S. (1954). The development of modern English. 2nd ed. Revised by Frederic G. Cassidy. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Thompson, L. (1978). Learning to pronounce English. London: Evans Brothers Limited.

Trager, E. C. (1982). P d's in depth. Culver City, California: ELS Publications.

Trim, J. (1975). English pronunciation illustrated. Cambridge: Cambridge University Press.

Wijk, A. (1966). Rules of pronunciation for the English language. London: Oxford University Press.

BEST COPY AVAILABLE